

being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Various amendments were made throughout these claims to bring them into conformity with the requirements of 35 USC 112, second paragraph. Therefore, Applicants submit that this rejection is overcome and should be withdrawn.

Specifically, amendments were made throughout the above-noted claims to overcome the objections noted by the Examiner in paragraph 2 of the Office Action.

The Examiner's cooperation is respectfully requested to contact Applicants' Attorney by telephone should any further indefinite matter be discovered so that appropriate amendments may be made.

Amendments were made to the present claims in order to more clearly describe features of the present invention not taught or suggested by any of the references of record whether taken individually or in combination with each other. Particularly, amendments were made to the independent claims to more clearly recite that the magnitude of the internal supply voltage changing at the second rate is not smaller but larger than that of the internal supply voltage changing at the first rate, that the internal supply voltage changing at the third rate enables testing of the load circuits and that the magnitude of the internal supply voltage becomes larger without decreasing in proportion to

an enlargement of the magnitude of the external supply voltage.

The above-described features of the present invention as now recited in the claims, particularly describes that the internal supply voltage of the internal power supply means increases continuously as shown in the attached Sketch indicative of the features of the present invention. This characteristic of continuous increase of the internal supply voltage of the internal supply means of the present invention in proportion to the increase of the external supply voltage guarantees stable operation of the small geometry devices in LSI circuits. If the internal supply voltage is decreased in inverse proportion to the increase of the external supply voltage than stable operation of the small geometry devices in the LSI circuits cannot be guaranteed. Therefore, the features of the present invention provides unique advantages over the conventional systems as taught by the references of record.

In the January 13, 1993 Office Action the Examiner rejected claims 7, 9-11, 13, 15, 17, 18 and 20-70 under 35 USC 103 as being unpatentable over Alaspa and rejected claims 69 and 70 under 35 USC 103 as being unpatentable over Alaspa as applied to claims 20 and 23 and further in view of Takanishi. These rejections are traversed being that the features of the present invention as now recited in the claims are not taught or suggested by Alaspa or Takanishi whether taken individually or in combination with each other

as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Alaspa merely discloses, as recognized by the Examiner, an on-chip power-on reset circuit in MOS technology. The basic function of the circuit taught by Alaspa is of power-on reset so as to provide a signal for initializing or presetting the states of flip-flop circuits in a logic system to a desired digital logic state. The Examiner's attention is directed to column 1, lines 4-13 of Alaspa.

Fig 3 of Alaspa illustrates the magnitude of the alleged internal supply voltage  $V_r$  as it relates to the magnitude of the external supply voltage  $V_{dd}$ . As illustrated in Fig. 3 of Alaspa the internal supply voltage has a increasing rate A segment then a decreasing rate segment B and a constant rate segment E. Thus it is readily apparent that the magnitude of the internal supply voltage of Alaspa does not become larger without decreasing in proportion to the magnitude of the enlargement of the external supply voltage as in the present invention since segment B illustrates a decrease in the magnitude of the internal supply voltage relative to an increasing external supply voltage magnitude.

In the Office Action the Examiner asserts that the first rate corresponds to the slope at segment A, the second rate corresponds to the slope at segment B and the third

rate corresponds to the slope of the segment C. As is quite clear from Fig. 3 of Alaspa the slope of the segment B is negative thus causing a decrease in the magnitude of the internal supply voltage in relation to the external supply voltage. Further, a negative slope at segment B (second rate) is certainly not larger than the positive slope at segment A (first rate) as required by the claims. Thus, Alaspa teaches from the present invention in which the magnitude of the internal supply voltage becomes larger without decreasing in proportion to the enlargement of the magnitude of the external supply voltage and the second rate is larger than the first rate.

Further in this regard the Examiner asserts that the third rate corresponds to segment C. However, the Examiner seems to ignore segment E which is illustrated in Fig. 3 as being the rate succeeding the second rate at segment B. Thus it would appear that the third rate allegedly corresponds to segment E. Segment E of Alaspa, as shown in Fig. 3, does not increase in relation to the increase in the external supply voltage  $V_{dd}$  as per the present invention.

Therefore, here again the teachings of Alaspa do not correspond to that of the present invention wherein the magnitude of the internal supply voltage becomes larger without increasing in proportion to an enlargement of the magnitude of the external supply voltage. Segment E of Fig. 3 of Alaspa merely remains constant as the external supply voltage is increased.

In the Office Action the Examiner admits that Alaspa does not describe testing in any detail. In fact there is no such teaching of testing in Alaspa. Thus, the Examiner's attempt to rely upon Alaspa for this feature completely fails since no teaching whatsoever can be found in Alaspa even suggesting that one of the rates taught therein can be used for testing. The Examiner merely provides an unsupported statement that:

"At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to test a chip including the reset circuit disclosed by Alaspa because chip fabrication was typically unreliable."

The above assertion by the Examiner is first of all completely unsupported by the teachings of Alaspa and secondly does not show with any certainty that the actual features recited in the claims would have been obvious to those of ordinary skill in the art other than the fact that the Examiner says it is so. The claims clearly recite that a third rate is provided by an internal supply voltage to enable testing of the device. No such teaching can be found in Alaspa or any of the other references of record wherein an internal supply means provides a voltage increasing at a third rate relative to the external voltage so as to enable testing of the device itself.

With respect to the rejection of claims 69 and 70 as being unpatentable over Alaspa in view of Takanishi, the same arguments presented above apply as well to this rejection. In fact Takanishi does not supply any of the

deficiencies noted above with respect to Alaspa relative to the features of the present invention. Therefore, the combination of Alaspa and Takanishi fails to teach or suggest the present invention as recite in claims 69 and 70.

Claims 12 and 19 were amended to be in independent form including all the limitations of the base claim and any intervening claims. Also claim 19 was amended to overcome the rejection under 35 USC 112. In paragraphs 6 and 7 of the Office Action the Examiner indicated that claims 12 and 19 would be allowable if rewritten or amended to include all the limitations of the base claim and any intervening claims. Since claims 12 and 19 were amended to be in independent form Applicants submit that claims 12 and 19 are allowable over the prior art of record.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of the claims.


In view of the foregoing amendments and remarks it is submitted that the claims are in condition for allowance. Accordingly, early allowance of the claims is respectfully requested.

To the extent necessary, applicants petition for an extension of time under 37 C.F.R. section 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to

Deposit Account No. 01-2135 (Case No. 501.20699VC2) and  
please credit any excess fees to such Deposit Account.

Respectfully submitted,

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